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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,661	03/15/2001	Eric R. Alling	50823	5747

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EXAMINER

SINES, BRIAN J

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,661

Applicant(s)

ALLING ET AL.

Examiner

Brian J. Sines

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

Drawings

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing(s) under 37 CFR 1.81. No new matter may be introduced in the required drawing.

Claim Objections

Claim 18 is objected to because of the following informalities: Method claim 18 is dependent upon system claim 1. Claim 18 appears to duplicate the limitations in claim 10. Should claim 18 be dependent upon method claim 11?

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 2, 5 – 7, 11, 12 and 14 – 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Eckles et al. (U.S. Pat. No. 4,326,940). Regarding claims 1, 5, 6 and 11, 14, 15, Eckles et al. teach a system comprising a method and apparatus for controlling the operation of equipment, wherein the operation of the equipment is adjustable via at least one parameter setting (e.g., bath temperature, shut-down mechanisms for external equipment & feed equipment). The system comprises: an analyzer module (1) in communication with the equipment (e.g., bath, 43), wherein the analyzer module is monitoring the operation of the equipment and generating an operations analysis; a control host (e.g., minicomputer, 14) receiving the operations analysis and determining therefrom whether the equipment is operating efficiently; wherein the control host being in communication with the equipment for adjusting at least one parameter setting; wherein when the control host determines that the equipment is not operating efficiently, based upon predetermined operational parameters for the equipment, the control host adjusts at least one parameter setting until the equipment is operating efficiently (see col. 3, lines 40 – 68; col. 4, lines 1 – 65). Regarding claims 2 and 12, Eckles et al. teach that the process may be monitored continuously (see col. 7, lines 27 – 35). Regarding claims 7 and 16, Eckles et al. teach that the control host maintains a log of previous settings of at least one parameter setting, wherein the control host adjusts at least one parameter setting based upon the log of previous settings (see col. 4, lines 9 – 28; col. 8, lines 6 – 21).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3, 4, 8, 9, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckles et al. in view of Reid (U.S. Pat. No. 6,458,262 B1). Eckles et al. do not specifically teach that the control host is in a remote location with the analyzer module. Reid does teach an on-line monitoring and control system for an electroplating chemistry bath, wherein the control system is connected to a telecommunications or computer network (i.e., the internet) for remotely controlling and monitoring the equipment and process (see col. 12, lines 1 – 9). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate a computer or a telecommunications network, as taught by Reid, with the control and monitoring system, as taught by Eckles et al., in order to facilitate complete and effective control and monitoring for the electroplating bath process and equipment.

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Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckles et al. in view of Forand et al. (U.S. Pat. No. 5,476,578 A). Eckles do teach the control and monitoring of replenishment flow rates, such as for solvent delivery (see col. 3, lines 54 – 65). However, Eckles et al. do not specifically teach the monitoring and control of agitation. Forand et al. do teach an electroplating process, which incorporates the agitation (see col. 26, lines 15 – 20). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate a system for monitoring and controlling agitation, as taught by Forand et al., with the control and monitoring system, as taught by Eckles et al., in order to effectively monitoring and control such an electroplating bath process, which incorporates agitation.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Havekost et al. teach a process control system using a computer network. Kaufman et al. teach a plating fluid replenishment system and method. Harris et al. teach an automated method for the analysis and control of a plating process. Takehawa teaches a monitoring and control system for a plating process.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines whose telephone number is (703) 305-0401. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

BJS
June 29, 2003


Jill Warden
Supervisory Patent Examiner
Technology Center 1700